

**PCT**

(PCT Rule 61.2)

Commissioner  
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Office, PCT  
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CP2/5C24  
Arlington, VA 22202  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 14 December 2000 (14.12.00)	<b>ETATS-UNIS D'AMERIQUE</b> in its capacity as elected Office
<b>International application No.</b> PCT/US00/11150	<b>Applicant's or agent's file reference</b> 54838PCT1B
<b>International filing date</b> (day/month/year) 25 April 2000 (25.04.00)	<b>Priority date</b> (day/month/year) 28 April 1999 (28.04.99)
<b>Applicant</b> VRIEZE, Cheryl, A. et al	

- ☒ in the demand filed with the International Preliminary Examining Authority on:

12 November 2000 (12.11.00)

- ☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was  
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p><b>The International Bureau of WIPO</b>  <b>34, chemin des Colombettes</b>  <b>1211 Geneva 20, Switzerland</b></p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer</p> <p><b>Zakaria EL KHODARY</b></p> <p>Telephone No.: (41-22) 338.83.38</p>
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**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

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DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/11150

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F21V8/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F21V

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 800 036 A (HITACHI CABLE) 8 October 1997 (1997-10-08) abstract; figures 1-16 page 1 page 5	1-3, 5-7, 14, 15
Y	FR 2 727 498 A (D.GAILLARD ET AL) 31 May 1996 (1996-05-31) abstract; figure 1	1-3, 5-7, 14, 15
Y	FR 2 706 018 A (KODAK-PATHE) 9 December 1994 (1994-12-09) abstract; figures 1-4	1-3, 5-7, 14, 15
P, X	WO 99 22174 A (MINNESOTA MINING&MANUFACTURING) 6 May 1999 (1999-05-06) page 7 -page 9; figures 6-8	1-3, 5-8, 14-18



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

### \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

29 June 2000

Date of mailing of the international search report

06/07/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Malic, K

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/11150

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0800036	A	08-10-1997	JP 9325221 A CA 2201795 A US 5857761 A	16-12-1997 04-10-1997 12-01-1999
FR 2727498	A	31-05-1996	NONE	
FR 2706018	A	09-12-1994	NONE	
WO 9922174	A	06-05-1999	AU 6942798 A	17-05-1999

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>54838PCT1B</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 00/ 11150</b>	International filing date (day/month/year) <b>25/04/2000</b>	(Earliest) Priority Date (day/month/year) <b>28/04/1999</b>
Applicant  <b>3M INNOVATIVE PROPERTIES COMPANY</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1  
☐ None of the figures.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 00/11150

Box III TEXT OF THE ABSTRACT (Continuation of first sheet)

A compact, and low maintenance back lit illuminated sign (10), especially such a back lit sign suitable for use on a vehicle. The shallow back lit illuminated sign (10) comprises a housing (12), a light source (30) suitable for supplying light to a light fiber (20), and a least one side-light emitting fiber (20). The housing (12) has a sign face (14) and an interior surface (16, 18) that includes a back surface (19). The sign face (14) has an illuminated area that diffusely transmits light. The back surface (19) is located at a depth from the sign face (14). One or more side-light emitting fibers (20) are connected so as to receive light from the light source (30) and are mounted within the housing (12) so as to limit the amount of emitted light, from the fiber(s) (20), that travels directly to the sign face (14).

# INTERNATIONAL SEARCH REPORT

International Application No

PC 00/11150

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 F21V8/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 F21V

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\* & \* document member of the same patent family

Date of the actual completion of the international search

29 June 2000

Date of mailing of the international search report

06/07/2000

Name and mailing address of the ISA  
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NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Malic, K

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No

PC 00/11150

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0800036 A	08-10-1997	JP 9325221 A CA 2201795 A US 5857761 A	16-12-1997 04-10-1997 12-01-1999
FR 2727498 A	31-05-1996	NONE	
FR 2706018 A	09-12-1994	NONE	
WO 9922174 A	06-05-1999	AU 6942798 A	17-05-1999



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US00/11150

**I. Basis of the report**

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17).):*

**Description, pages:**

1-18 as originally filed

**Claims, No.:**

1-18 as originally filed

**Drawings, sheets:**

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US00/11150

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims	1-18
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-18
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-18
	No:	Claims	

2. Citations and explanations  
**see separate sheet**

**VI. Certain documents cited**

1. Certain published documents (Rule 70.10)

and / or

2. Non-written disclosures (Rule 70.9)

**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:  
**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/US00/11150

**I. Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1) Novelty and inventive step**

**Independent claims (1 and 14)**

Claim 1

The following document is considered to be the closest state of the art:

FR-A-2727498 (D1)

The following features of claim 1 are known from D1

A shallow back lit illuminated sign, comprising:  
a housing having a sign face and an interior surface that includes a back surface, said sign face having an illuminated area through which light from inside said housing difusely transmits out of said housing, said interior surface having at least a portion thereof that is diffuse reflective enough to provide luminance uniformity to said sign, said back surface being located at a depth from said sign face,  
b) a light source for supplying light to a light fiber; and  
c) at least one side-light emitting fiber connected so as to receive light from said light source and mounted within said housing .

The difference between the subject matter of the independent claim 1 and the device of D1 is essentially given by:

- i) the illuminated area being large relative to said depth
- ii) the light source is mounted within said housing so as to significantly limit the amount of emitted light, from said side-light emitting fiber, that travels directly to said sign face.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/US00/11150

The problem solved by the sign of claim 1 is:

To provide an in the thickness dimension compact illuminated sign using light fiber(s) that exhibit diffuse reflection of light from the light fibers.

The solution, i.e. the combination of features of claim 1 is not shown, neither rendered obvious by the state of the art. In particular modifying the sign of D1 in order to make the illuminated area being large relative to said depth, while at the same time keeping the sign diffusely transmitting, would require a constructional change, as reflected in the difference ii) of claim 1 with D1, which has not been shown or suggested by the prior art.

In particular, EP-A-0800036 (D2) only shows a sign, where light from a light guide travels via the side of a light guiding plate 4 to the front part of the light guiding plate. It does not show or suggest a housing having a sign face and a (partially) diffusive reflective interior surface.

Claim 1 is therefore considered to fulfill the requirements of the PCT (Art 33(2) and Art 33(3) respectively) as regards novelty and inventive step.

**Claim 14**

The closest prior art is considered to be D1  
EP-A-0 800 036 (D2)

The following features of claim 14 are known from D1:

An unassembled (implicitly disclosed) shallow back lit illuminated sign comprising:

- a) a sign face, having an illuminated area that diffusely transmits light and at least one interior surface panel which can be assembled to form a housing and, when assembled to form the housing,
  - i) said at least one interior surface panel forms an interior surface of the housing including a back surface
  - ii) said interior surface has at least a portion thereof that is diffuse reflective enough to provide luminance uniformity to the assembled sign,

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/US00/11150

- b) a light source for supplying light to a light fiber; and
- c) a side-light emitting fiber connectable so as to receive light from said light source

The difference between the subject matter of the independent claim 14 and the device of D1 are essentially given by:

- i) the sign face forms a sign-face panel.
- ii) said back surface is located at a depth from said sign face, and
- iii) said illuminated area is large relative to said depth;
- iv) the side-light is mountable within the assembled housing so as to significantly limit the amount of emitted light from said fiber that travels directly to said sign face.

A similar problem-solution as set out above in relation to claim 1 can mutatis mutandis be applied to claim 14.

Claim 14 is therefore also considered to fulfill the requirements of the PCT (Art 33(2) and Art 33(3) respectively) as regards novelty and inventive step.

**Dependent claims**

Dependent claims 2-13 and 15-18 seek protection for preferred embodiments and are therefore also considered to fulfill the requirements of the PCT as regards novelty and inventive step.

**2) Industrial applicability**

The invention is applicable in lighted sign manufacturing

**II. Re Item VI**

**Certain documents cited**

Certain published documents (Rule 70.10)

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/US00/11150

Application No Patent No	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
PCT/US98/06118	1999-05-06	1998-03-27	1997-10-24

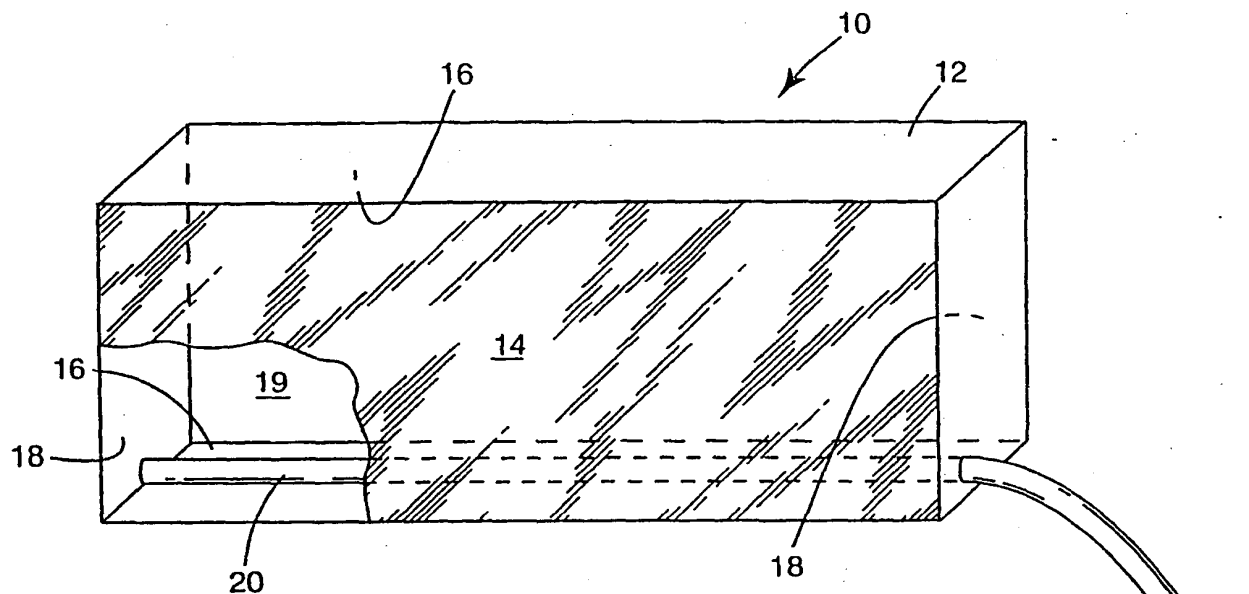
The subject matter of claims 1-3, 5-9 and 14-18 is considered to be known from document PCT/US98/06118, earlier filed, but published after the priority date of the current international application.

**III. Re Item VII**

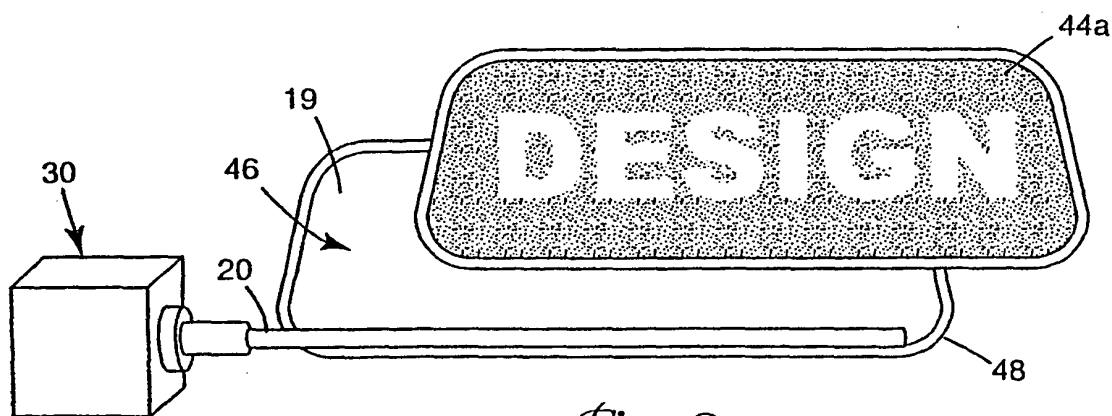
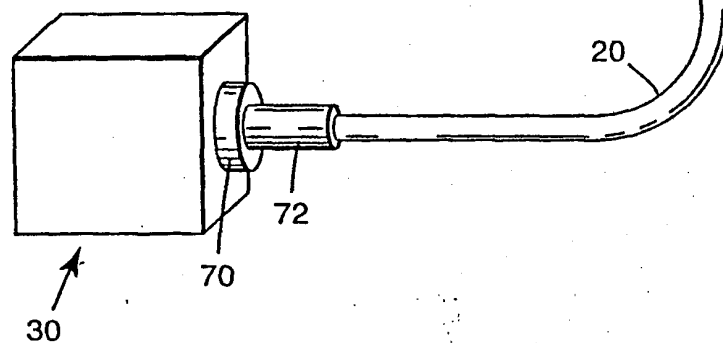
**Certain defects in the international application**

- 1) Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 are not mentioned in the description, nor are these documents identified therein.
- 2) The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

1/3

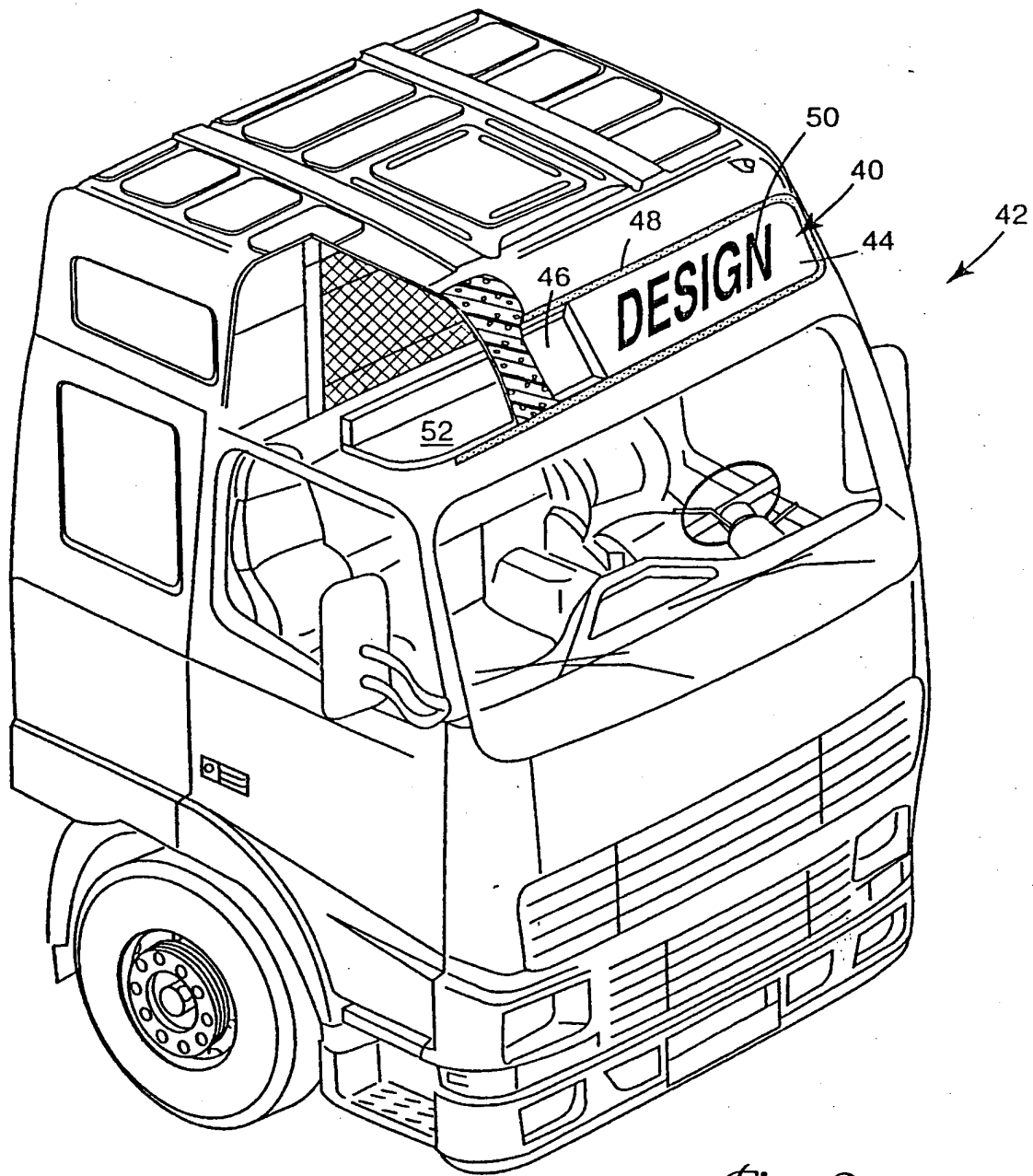


*Fig. 1*



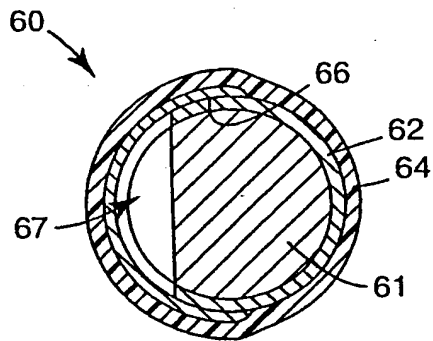
*Fig. 3*

2/3

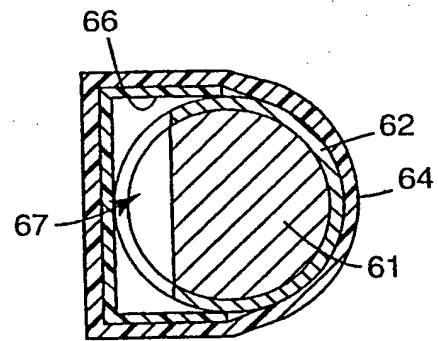


*Fig. 2*

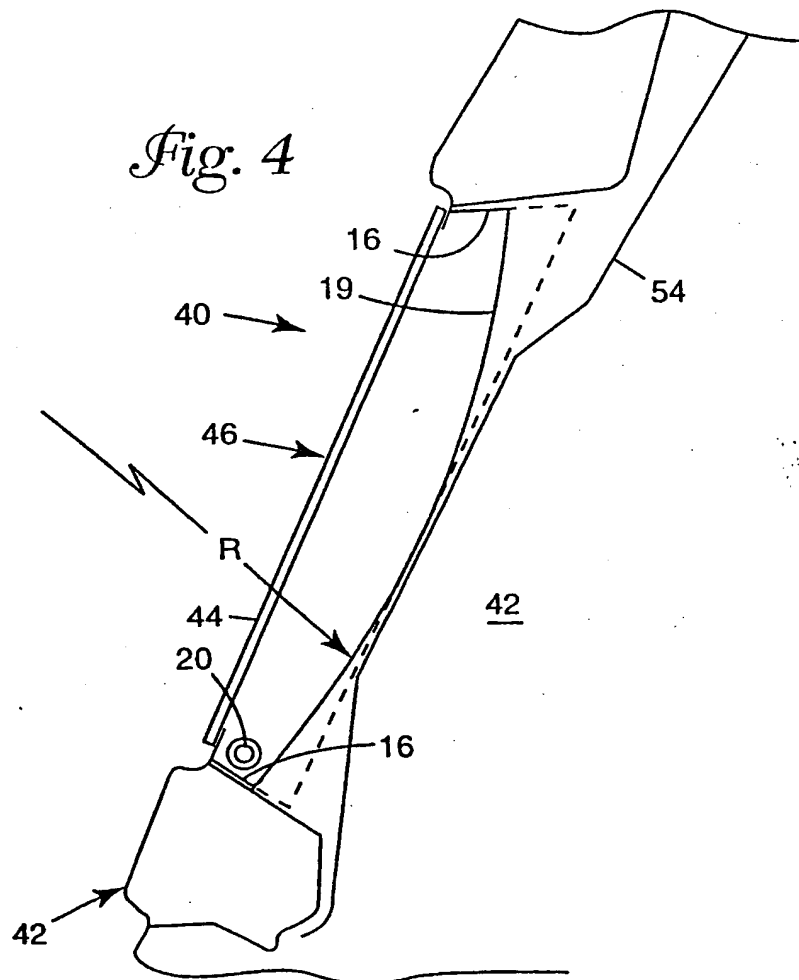




*Fig. 5A*



*Fig. 5B*



*Fig. 4*

# PATENT COOPERATION TREATY

From the RECEIVING OFFICE

## PCT

H2  
6/8/00

<b>To:</b> <div style="float: right; text-align: right;"> <small>OFFICE OF INTELLECTUAL PROPERTY COUNSEL 3M INNOVATIVE PROPERTIES COMPANY</small> </div> <div style="clear: both;"></div> HAROLD C. KNECHT, III OFFICE OF INTELLECTUAL PROPERTY COUNSEL POST OFFICE BOX 33427 SAINT PAUL MN 55133-3427		<b>NOTIFICATION OF THE INTERNATIONAL APPLICATION NUMBER AND OF THE INTERNATIONAL FILING DATE</b>  (PCT Rule 20.5(c))	
<small>REFERRED TO</small>		Date of mailing (day/month/year) <b>26 MAY 2000</b>	
Applicant's or agent's file reference 54838PCT1B, 008		<b>IMPORTANT NOTIFICATION</b>	
International application No. PCT/US00/11150	International filing date (day/month/year) 25 APR 00	Priority date (day/month/year) 28 APR 99	
Applicant 3M INNOVATIVE PROPERTIES COMPANY			
Title of the invention <b>SHALLOW DEPTH BACK LIT ILLUMINATED SIGNAGE</b>			

1. The applicant is hereby notified that the international application has been accorded the international application number and the international filing date indicated above.

2. The applicant is further notified that the record copy of the international application:

- ☒ was transmitted to the International Bureau on **26 MAY 2000**
- ☐ has not yet been transmitted to the International Bureau for the reason indicated below and a copy of this notification has been sent to the International Bureau\*:
- ☐ because the necessary national security clearance has not yet been obtained.
- ☐ because (reason to be specified):

\* The International Bureau monitors the transmittal of the record copy by the receiving Office and will notify the applicant (with Form PCT/IB/301) of its receipt. Should the record copy not have been received by the expiration of 14 months from the priority date, the International Bureau will notify the applicant (Rule 22.1(c)).

### 3. FOREIGN TRANSMITTAL LICENSE INFORMATION

Completed by: DAH

- ☐ Additional license for foreign transmittal not required. This subject matter is covered by a license already granted on the equivalent U.S. national application. Refer to that license for information concerning its scope.
- ☐ License for foreign transmittal not required. 37 CFR 5.11(e)(1) or 37 CFR 5.11(e)(2). However, a license may be required for additional subject matter. See 37 CFR 5.15(b).
- ☒ Foreign transmittal license granted. 35 U.S.C. 184; 37 CFR 5.11 on 5-18-00 (date)
- ☒ 37 CFR 5.15(a) ☐ 37 CFR 5.15(b)

Name and mailing address of the receiving Office Assistant Commissioner for Patents Box PCT Washington, D.C. 20231 Facsimile No.	Authorized officer <b>MELVIN S. BROOKS SR</b> <b>INTERNATIONAL DIVISION</b> 703-305-5163 Telephone No.
--	---

Form PCT/RO/105 (July 1992)

Tax **BL JUN 05 2000**

Register **BL JUN 05 2000**

PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

**NOTICE INFORMING THE APPLICANT OF THE  
COMMUNICATION OF THE INTERNATIONAL  
APPLICATION TO THE DESIGNATED OFFICES**

(PCT Rule 47.1(c), first sentence)

To: **OFFICE OF INTELLECTUAL  
PROPERTY COUNSEL**  
**KNECHT, Harold**  
**Office of Intellectual Property**  
**Counsel**  
**P.O. Box 33427** NOV 13 2000  
**Saint Paul, MN 55133-3427**  
**ETATS-UNIS D'AMERIQUE**  
REFERRED TO \_\_\_\_\_

Date of mailing (day/month/year) 02 November 2000 (02.11.00)		<b>IMPORTANT NOTICE</b>	
Applicant's or agent's file reference 54838PCT1B 008			
International application No. PCT/US00/11150	International filing date (day/month/year) 25 April 2000 (25.04.00)	Priority date (day/month/year) 28 April 1999 (28.04.99)	
Applicant 3M INNOVATIVE PROPERTIES COMPANY et al			

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:  
AG,AU,DZ,KP,KR,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:  
AE,AL,AM,AP,AT,AZ,BA,BB,BG,BR,BY,CA,CH,CN,CR,CU,CZ,DE,DK,DM,EA,EE,EP,ES,FI,GB,GD,  
GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KZ,LC,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK,MN,MW,MX,  
NO,NZ,OA,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU,ZA,ZW  
The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).
3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on  
02 November 2000 (02.11.00) under No. WO 00/65277

**REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)**

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

**REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))**

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.35	Authorized officer J. Zahra Telephone No. (41-22) 338.83.38
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## PATENT COOPERATION TREATY

PCT

INFORMATION CONCERNING ELECTED  
OFFICES NOTIFIED OF THEIR ELECTION

(PCT Rule 61.3)

From the INTERNATIONAL BUREAU

To:

HILLERINGMANN, Jodhe  
Patent Attorney  
Banhofsvorplatz 1 27.12.2000  
(Deichmannhaus)  
D-50667 Cologne  
ALLEMAGNE

Date of mailing (day/month/year) 14 December 2000 (14.12.00)		IMPORTANT INFORMATION	
Applicant's or agent's file reference 54838PCT1B			
International application No. PCT/US00/11150	International filing date (day/month/year) 25 April 2000 (25.04.00)	Priority date (day/month/year) 28 April 1999 (28.04.99)	
Applicant 3M INNOVATIVE PROPERTIES COMPANY et al			

1. The applicant is hereby informed that the International Bureau has, according to Article 31(7), notified each of the following Offices of its election:

AP : GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW  
EP : AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
National : AG, AU, BG, CA, CN, CZ, DE, DZ, IL, JP, KP, KR, MN, NO, NZ, PL, RO, RU, SE, SK, US

2. The following Offices have waived the requirement for the notification of their election; the notification will be sent to them by the International Bureau only upon their request:

EA : AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
OA : BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
National : AE, AL, AM, AT, AZ, BA, BB, BR, BY, CH, CR, CU, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IN, IS, KE, KG, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MW, MX, PT, SD, SG, SI, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW

3. The applicant is reminded that he must enter the "national phase" before the expiration of 30 months from the priority date before each of the Offices listed above. This must be done by paying the national fee(s) and furnishing, if prescribed, a translation of the international application (Article 39(1)(a)), as well as, where applicable, by furnishing a translation of any annexes of the international preliminary examination report (Article 36(3)(b) and Rule 74.1).

Some offices have fixed time limits expiring later than the above-mentioned time limit. For detailed information about the applicable time limits and the acts to be performed upon entry into the national phase before a particular Office, see Volume II of the PCT Applicant's Guide.

The entry into the European regional phase is postponed until 31 months from the priority date for all States designated for the purposes of obtaining a European patent.

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. (41-22) 740.14.35</p>	<p>Authorized officer: Zakaria EL KHODARY</p> <p>Telephone No. (41-22) 338.83.38</p>
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## PCT REQUEST

54838PCT1B

Original (for SUBMISSION) - printed on 11.04.2000 11:00:14 AM

<b>0</b>	<b>For receiving Office use only</b>	
<b>0-1</b>	International Application No.	
<b>0-2</b>	International Filing Date	
<b>0-3</b>	Name of receiving Office and "PCT International Application"	
<b>0-4</b> <b>0-4-1</b>	<b>Form - PCT/RO/101 PCT Request</b> Prepared using	<b>PCT-EASY Version 2.90</b> (updated 08.03.2000)
<b>0-5</b>	<b>Petition</b> The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
<b>0-6</b>	Receiving Office (specified by the applicant)	<b>United States Patent and Trademark Office (USPTO) (RO/US)</b>
<b>0-7</b>	Applicant's or agent's file reference	<b>54838PCT1B</b>
<b>I</b>	<b>Title of invention</b>	<b>SHALLOW DEPTH BACK LIT ILLUMINATED SIGNAGE</b>
<b>II</b>	<b>Applicant</b>	
<b>II-1</b>	This person is:	<b>applicant only</b>
<b>II-2</b>	Applicant for	<b>all designated States except US</b>
<b>II-4</b>	Name	<b>3M INNOVATIVE PROPERTIES COMPANY</b>
<b>II-5</b>	Address:	<b>3M Center Post Office Box 33427 Saint Paul, MN 55133-3427 United States of America</b>
<b>II-6</b>	State of nationality	<b>US</b>
<b>II-7</b>	State of residence	<b>US</b>
<b>II-8</b>	Telephone No.	<b>(651) 733-1500</b>
<b>II-9</b>	Facsimile No.	<b>(651) 736-7586</b>
<b>III-1</b>	<b>Applicant and/or inventor</b>	
<b>III-1-1</b>	This person is:	<b>applicant and inventor</b>
<b>III-1-2</b>	Applicant for	<b>US only</b>
<b>III-1-4</b>	Name (LAST, First)	<b>VRIEZE, Cheryl A.</b>
<b>III-1-5</b>	Address:	<b>811 Curfew Street Saint Paul, MN 55114 United States of America</b>
<b>III-1-6</b>	State of nationality	<b>US</b>
<b>III-1-7</b>	State of residence	<b>US</b>

## PCT REQUEST

54838PCT1B

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III-2	<b>Applicant and/or Inventor</b>	
III-2-1	This person is:	applicant and inventor
III-2-2	Applicant for	US only
III-2-4	Name (LAST, First)	SCHROEDER, Kristin M.
III-2-5	Address:	3050 Sandy Hook Drive Roseville, MN 55113 United States of America
III-2-6	State of nationality	US
III-2-7	State of residence	US
III-3	<b>Applicant and/or Inventor</b>	
III-3-1	This person is:	applicant and inventor
III-3-2	Applicant for	US only
III-3-4	Name (LAST, First)	LOWE, Robert H.
III-3-5	Address:	9625 Brookview Road Woodbury, MN 55125 United States of America
III-3-6	State of nationality	US
III-3-7	State of residence	US
IV-1	<b>Agent or common representative; or address for correspondence</b> The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	KNECHT, Harold C., III
IV-1-2	Address:	Office of Intellectual Property Counsel Post Office Box 33427 Saint Paul, MN 55133-3427 United States of America
IV-1-3	Telephone No.	(651) 575-1056
IV-1-4	Facsimile No.	(651) 736-7586
IV-2	<b>Additional agent(s)</b>	additional agent(s) with same address as first named agent
IV-2-1	Name(s)	GRISWOLD, Gary L.; BATES, Carolyn A.; CHERNIVEC, Gerald F.; LITTLE, Douglas B.; SPRAGUE, Robert W.

## PCT REQUEST

54838PCT1B

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V V-1	<b>Designation of States</b> Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AP: GH GM KE LS MW SD SL SZ TZ UG ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT</p> <p>EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT</p> <p>EP: AT BE CH&amp;LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE and any other State which is a Contracting State of the European Patent Convention and of the PCT</p> <p>OA: BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT</p>
V-2	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AE AG AL AM AT (patent and utility model) AU AZ BA BB BG BR BY CA CH&amp;LI CN CR CU CZ (patent and utility model) DE (patent and utility model) DK (patent and utility model) DM DZ EE (patent and utility model) ES FI (patent and utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR (patent and utility model) KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK (patent and utility model) SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW</p>
V-5	<b>Precautionary Designation Statement</b> In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.	
V-6	<b>Exclusion(s) from precautionary designations</b>	NONE

## PCT REQUEST

Original (for SUBMISSION) - printed on 11.04.2000 11:00:14 AM

VI-1	Priority claim of earlier International application		
VI-1-1	Filing date	28 April 1999 (28.04.1999)	
VI-1-2	Number	PCT/US99/09215	
VI-1-3	PCT receiving Office	US	
VI-2	Priority document request The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1	
VII-1	International Searching Authority Chosen	European Patent Office (EPO) (ISA/EP)	
VIII	Check list	number of sheets	electronic file(s) attached
VIII-1	Request	5	-
VIII-2	Description	18	-
VIII-3	Claims	3	-
VIII-4	Abstract	1	54838pct1b-abs.txt
VIII-5	Drawings	3	-
VIII-7	TOTAL	30	
	Accompanying items	paper document(s) attached	electronic file(s) attached
VIII-8	Fee calculation sheet	✓	-
VIII-10	PCT F A:Y diskette	-	diskette
VIII-17	Other (specified):	Record of Action Taken by Directors of 3M Innovative Properties	-
VIII-17	Other (specified):	Transmittal Letter	-
VIII-17	Other (specified):	Itemized Return Postcard	-
VIII-18	Figure of the drawings which should accompany the abstract	1	
VIII-19	Language of filing of the International application	English	
IX-1	Signature of applicant or agent	<i>Carolyn A. Bates</i>	
IX-1-1	Name	3M INNOVATIVE PROPERTIES COMPANY	
IX-1-2	Name of signatory	BATES, Carolyn A.	
IX-1-3	Capacity	Assistant Secretary	
IX-2	Signature of applicant or agent		
IX-2-1	Name (LAST, First)	VRIEZE, Cheryl A. <i>Cheryl A. Vrieze</i>	
IX-3	Signature of applicant or agent		
IX-3-1	Name (LAST, First)	SCHROEDER, Kristin M. <i>Kristin M. Schroeder</i>	
IX-4	Signature of applicant or agent		
IX-4-1	Name (LAST, First)	LOWE, Robert H. <i>Robert H. Lowe</i>	



## PCT REQUEST

54838PCT1B

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## FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/EP
10-6	Transmittal of search copy delayed until search fee is paid	

## FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
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**PCT (ANNEX - FEE CALCULATION SHEET)**

54838PCT1B

Original (for SUBMISSION) - printed on 11.04.2000 11:00:14 AM

(This sheet is not part of and does not count as a sheet of the international application)

<b>0</b>	<b>For receiving Office use only</b>		
<b>0-1</b>	International Application No.		
<b>0-2</b>	Date stamp of the receiving Office		
<b>0-4</b>	<b>Form - PCT/RO/101 (Annex)</b>		
<b>0-4-1</b>	PCT Fee Calculation Sheet Prepared using	<b>PCT-EASY Version 2.90 (updated 08.03.2000)</b>	
<b>0-9</b>	Applicant's or agent's file reference	<b>54838PCT1B</b>	
<b>2</b>	Applicant	<b>3M INNOVATIVE PROPERTIES COMPANY, et al.</b>	
<b>12</b>	<b>Calculation of prescribed fees</b>	<b>fee amount/multiplier</b>	<b>total amounts (USD)</b>
<b>12-1</b>	Transmittal fee T	⇒	<b>240</b>
<b>12-2</b>	Search fee S	⇒	<b>990</b>
<b>12-3</b>	International fee Basic fee (first 30 sheets) b1	<b>427</b>	
<b>12-4</b>	Remaining sheets	<b>0</b>	
<b>12-5</b>	Additional amount (X)	<b>10</b>	
<b>12-6</b>	Total additional amount b2	<b>0</b>	
<b>12-7</b>	b1 + b2 = B	<b>427</b>	
<b>12-8</b>	Designation fees Number of designations contained in international application	<b>85</b>	
<b>12-9</b>	Number of designation fees payable (maximum 8)	<b>8</b>	
<b>12-10</b>	Amount of designation fee (X)	<b>92</b>	
<b>12-11</b>	Total designation fees D	<b>736</b>	
<b>12-12</b>	PCT-EASY fee reduction R	<b>-132</b>	
<b>12-13</b>	Total International fee (B+D-R) I	⇒	<b>1,031</b>
<b>12-14</b>	Fee for priority document Number of priority documents requested	<b>1</b>	
<b>12-15</b>	Fee per document (X)	<b>15</b>	
<b>12-16</b>	Total priority document fee P	⇒	<b>15</b>
<b>12-17</b>	<b>TOTAL FEES PAYABLE (T+S+I+P)</b>	⇒	<b>2,276</b>
<b>12-19</b>	Mode of payment	<b>authorization to charge deposit account</b>	
<b>12-20</b>	Deposit account instructions The receiving Office:	<b>United States Patent and Trademark Office (USPTO) (RO/US)</b>	
<b>12-20-1</b>	is hereby authorized to charge the total fees indicated above to my deposit account	✓	

## PCT (ANNEX - FEE CALCULATION SHEET)

54838PCT1B

Original (for SUBMISSION) - printed on 11.04.2000 11:00:14 AM

12-20-2	is hereby authorized to charge any deficiency or credit any over-payment in the total fees indicated above to my deposit account	✓
12-21	Deposit account No.	13-3723
12-22	Date	11 April 2000 (11.04.2000)
12-23	Name and signature	Carolyn A. Bates <i>Carolyn A. Bates</i>

## VALIDATION LOG AND REMARKS

13-2-3	Validation messages Names	Green? Applicant 2.: Where several first/given names are indicated, they should preferably be separated by a comma. Please verify.
		Green? Applicant 3.: Where several first/given names are indicated, they should preferably be separated by a comma. Please verify.
		Green? Applicant 4.: Where several first/given names are indicated, they should preferably be separated by a comma. Please verify.
		Green? Agent 2.: Where several first/given names are indicated, they should preferably be separated by a comma. Please verify.
		Green? Agent 3.: Where several first/given names are indicated, they should preferably be separated by a comma. Please verify.
		Green? Agent 4.: Where several first/given names are indicated, they should preferably be separated by a comma. Please verify.
		Green? Agent 5.: Where several first/given names are indicated, they should preferably be separated by a comma. Please verify.

10/0303

# TRANSMITTAL LETTER TO THE UNITED STATES RECEIVING OFFICE

Date	April 25, 2000
International Application No.	
Attorney Docket No.	54838PCT1B

## I. Certification under 37 CFR 1.10 (if applicable)

EL421370461US
Express Mail Mailing Number

April 25, 2000
Date of Deposit

I hereby certify that the application/correspondence attached hereto is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents Washington, D.C. 20231.

<i>TEEA ORNER</i>
Signature of Person Mailing Correspondence

TEEA ORNER
Typed or Printed Name of Person Mailing Correspondence

## II. ☒ New International Application

TITLE	SHALLOW DEPTH BACK LIT ILLUMINATED SIGNAGE	Earliest Priority Date (Day/Month/Year)
		28 April 1999

**SCREENING DISCLOSURE INFORMATION:** In order to assist in screening the accompanying international application for purposes of determining whether a license for foreign transmittal should and could be granted and for other purposes, the following information is supplied. (Note: check as many boxes as apply):

- A. ☐ The invention disclosed was not made in the United States.
- B. ☒ There is no prior U.S. application relating to this invention.
- C. ☐ The following prior U.S. application(s) contain subject matter which is related to the invention disclosed in the attached international application. (NOTE: priority to these applications may or may not be claimed on form PCT/RO/101 (Request) and this listing does not constitute a claim for priority.)

EL421370461US

Application No.		filed on	
Application No.		filed on	

- D. ☐ The present international application ☐ is substantially identical to ☐ contains less subject matter than that found in the prior U.S. application(s) identified in paragraph C above.
- E. ☐ The present international application ☐ contains additional subject matter not found in the prior U.S. application(s) identified in paragraph C above. The additional subject matter is found on pages  and ☐ DOES NOT ALTER ☐ MIGHT BE CONSIDERED TO ALTER the general nature of the invention in a manner which would require the U.S. application to have been made available for inspection by the appropriate defense agencies under 35 U.S.C. 181 and 37 CFR 5.1. See 37 CFR 5.15.

## III. ☐ A Response to an Invitation from the RO/US. The following document(s) is (are) enclosed:

- A. ☐ A Request for An Extension of Time to File a Response
- B. ☐ A Power of Attorney (General or Regular)
- C. ☐ Replacement Pages:

pages		of the request (PCT/RO/101)	pages		of the figures
pages		of the description	pages		of the abstract
pages		of the claims			

- D. ☐ Submission of Priority Documents

Priority Document		Priority Document	
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- E. ☐ Fees as specified on attached Fee Calculation sheet form PCT/RO/101 annex

## IV. ☐ A Request for Rectification under PCT Rule 91 ☐ A Petition ☐ A Sequence Listing Diskette

## V. ☒ Other (please identify): Itemized Return Postcard and PCT-Easy Diskette

The person signing this form is the:	<input type="checkbox"/> Applicant	Harold C. Knecht III
	<input checked="" type="checkbox"/> Attorney/Agent (Reg. No.) 35,576	Typed Name of Signer
	<input type="checkbox"/> Common Representative	<i>Harold C. Knecht III</i> Signature